

The RSDO News

October 2003

■ A Message From the Chief of the RSDO

■ Staffing Updates

 RSDO Bids Farewell to Bruce Clark

■ Contracting Officer's Corner

 On-Ramp VII Underway

 RSDO Prepares for Rapid III

 Small Disadvantaged Business Reminder

■ Current Business

 MMS Concept Studies Awarded

 NASA's Explorer Program to Release AO

■ Other RSDO News

 RSDO Attends the 17th Small Satellite Conference

A Message From the Chief of the RSDO

In composing this letter, I find we are preparing to say farewell to a valued member of the RSDO team—Bruce Clark. Bruce plans to retire at the end of the year after a distinguished career in both the private and public sectors. Please join me in wishing Bruce well in his retirement, and success in any future ventures. A search for the next RSDO Associate Chief is underway.

We have other news to report, as well. In May, we awarded three study delivery orders for the Sun-Earth Connection Program's Geospace Electrodynamics Connection (GEC) mission. The period of performance for these studies has recently concluded, and the GEC mission team is reviewing the final reports.

In the customer support arena, we are starting to receive support requests from mission teams looking to submit proposals for the upcoming MDEX and Discovery Announcements of Opportunity (AO). It is important that all missions seeking RSDO support begin working with our team at least five months before the AO is released. In addition to mitigating risk to mission success, this time period will allow the proposal team to select a contingent study/spacecraft contractor in time to support the team's proposal preparations.

Well, it is that time again! In anticipation of the end of the Rapid II contract's ordering period in January 2005, we are preparing for the release of the Rapid III solicitation, planned for the spring of 2004. We expect to receive 20 to 30 proposals from industry for consideration for Rapid III.

Finally, members of the RSDO team attended the 17th Small Satellite Conference held this summer at the Utah State University in Logan, Utah. This conference provides us with the opportunity to inform potential clients (in the civil market and elsewhere) about our services.

Please peruse this issue of the newsletter, and as always, feel free to contact me with any questions or comments about RSDO services.

Greg Smith

RSDO Chief

Phone: 301-286-1289

Email: Gregory.F.Smith@nasa.gov

Staffing Updates

RSDO Bids Farewell to Bruce Clark

A familiar face in the RSDO and at GSFC, Bruce Clark is planning to retire from civil service at the end of this calendar year. Bruce began his career in the private sector, working on the Lunar Excursion Model (LEM) for the Apollo Project. While working on LEM, he helped pioneer ways to use computers to analyze the performance of electrical power systems. In fact, he contributed to groundbreaking efforts that later evolved into the technology used to predict power system performance during the dramatic Apollo 13 rescue effort.

In 1980, Bruce joined the government team at GSFC in the Systems Review Office, where he led numerous spacecraft review teams. One of the systems Bruce reviewed—the Delta Launch Vehicle—was to play an important role in his ensuing career.

In the 1980s the government was endeavoring to transition from owning launch vehicles, to purchasing launch services from vendors. To accomplish this shift, the Delta Launch Services Project absorbed the SCOUT launch vehicle program and other small launch vehicle service programs to form the Orbital Launch Services (OLS) Program at Goddard. Bruce led this organization for a number of years, successfully originating and implementing the methods by which the government procures launch services.

Around 1999-2000, NASA Headquarters made the decision to transfer the functions of OLS to the Kennedy Space Center. Bruce reflected, “it was sad to see this tradition at Goddard disappear, yet we felt a real sense of satisfaction to see something we had established continue on smoothly, assuring no excessive risks that might have been caused by breaking in new personnel.”

Bruce subsequently joined the RSDO team, where his system engineering skills and experience in acquisition management have been key to the organization’s continued success. Primarily, Bruce has been responsible for building the approach, tools, and information base that the RSDO uses to support its customers and add vendors' spacecraft to the catalog through On-Ramps. His goal at RSDO was to make it easier and quicker for customers to understand what RSDO does, identify candidate buses from the RSDO catalog, determine the modifications needed to support individual missions, and calculate meaningful price estimates. To facilitate these RSDO customer services, Bruce successfully integrated computer and web-based technology into everyday RSDO processes.

When asked what he has enjoyed most about his career, Bruce stated that he loved “just learning about rockets and spending time with so many experts in rocketry.” Upon retirement, Bruce looks forward to having more free time to pursue his numerous hobbies, including playing and listening to bluegrass music and ballroom dancing. We may not have seen the last of Bruce—he mentioned that he is very open to continuing his technical work on a part-time basis. The entire RSDO team wishes Bruce the best in his future endeavors!

Contracting Officer's Corner

On-Ramp VII Underway

The RSDO received proposals for Rapid II's On-Ramp VII on March 14, 2003. Evaluation of offers is ongoing. On-ramps offer existing RSDO vendors the opportunity to place new buses in the RSDO catalog, and new vendors may submit proposals to be included in the catalog. To view the current RSDO catalog online, visit (<http://rsdo.gsfc.nasa.gov/Rapidii/catalog2.cfm>).

RSDO Prepares for Rapid III

The RSDO issued a Request For Information (RFI) for Rapid III on September 26, 2003. RFI responses were requested by 3 p.m. on October 10, 2003. In addition to responding to the questions, vendors were encouraged to offer any other insight or input concerning the Rapid III Request For Offer (RFO).

We are interested in understanding vendors' ideas for this upcoming procurement. Please feel free to contact Rebecca Wilkinson at (301) 286-7586 to hold a telephone conversation or to schedule an appointment at the RSDO facility at Goddard Space Flight Center in Greenbelt, MD.

Currently, the draft RFO for Rapid III is scheduled to be issued by the end of January 2004. We plan to release the Rapid III RFO in mid-March 2004, with proposals due by the end of April 2004. The RSDO hopes to award Rapid III contracts in Fall 2004.

Small Disadvantaged Business Reminder

When arranging for business partners or subcontractors, please remember to consider teaming up with one or more of the many small and/or disadvantaged businesses in the space industry. The RSDO strongly supports the Small and Disadvantaged Businesses (SDB) goals stated in the Rapid II IDIQ contract. For more information on official policies and goals concerning the integration of these companies into the NASA business environment, please visit the website of NASA's Office of Small and Disadvantaged Business Utilization (OSDBU) at <http://www.hq.nasa.gov/office/codekl/>.

Current Business

MMS Concept Studies Awarded

NASA has selected two teams to conduct concept studies for the Magnetospheric Multiscale (MMS) Mission, the fourth investigation in the series of NASA's Solar Terrestrial Probe (STP) missions. Targeted to launch in 2009, MMS consists of four spin-stabilized spacecraft that will be placed in a tetrahedral constellation.

MMS will study the fundamental plasma-physics processes of magnetic reconnection, charged particle acceleration, and turbulence in the key boundary regions in Earth's magnetosphere. These three processes, which control the flow of energy, mass, and momentum within and across magnetospheric boundaries, occur throughout the universe, and are fundamental to our understanding of astrophysical and solar system plasmas.

Proposals for this opportunity were submitted to NASA in March 2003, in response to the MMS Instrument Science Suite Team Announcement of Opportunity (AO). The winning teams will receive \$1 million to conduct a six-month implementation-feasibility study focused on cost, management and technical plans, including educational outreach and small business involvement. The two selected study proposals include:

- "An Instrument Suite for the Magnetospheric Multi-Scale Mission," led by Dr. James P. McFadden of the University of California at Berkeley; and
- "Solving Magnetospheric Acceleration, Reconnection, and Turbulence," led by Dr. James L. Burch of Southwest Research Institute, San Antonio.

In support of the Phase A studies, there will be multiple MMS spacecraft systems study tasks awarded to qualified RSDO vendors. These studies will focus on evaluating the impact of the various MMS instrument suite designs on potential RSDO spacecraft bus designs. Results from the instrument suite/spacecraft system trades will provide assessments of impacts (small or large) to an RSDO-type spacecraft design to aide the instrument suite proposers and the AO proposal evaluation teams.

For further information on MMS, please visit the MMS website at <http://stp.gsfc.nasa.gov/missions/mms/mms.htm>.

Portions of the information used to generate this article were obtained from NASA Press Release 03-307, dated Friday, September 26, 2003.

NASA's Explorer Program to Release AO

The Explorer Program is an element of the Flight Programs and Projects Directorate at the Goddard Space Flight Center in Greenbelt, MD. Its mission is to provide frequent flight opportunities for scientific investigations from space. The Explorer Program enables the definition, development, and implementation of mission concepts through a variety of modes to meet the need of the scientific community and the NASA Space Science Enterprise.

The Explorer Program Office manages the multiple scientific exploration missions for NASA's Office Space Science (OSS). These missions are characterized by relatively moderate cost, and by small to medium sized spacecraft that are capable of being built, tested, and launched in a short time interval (compared to large observatories such as the Hubble Space Telescope).

The Explorers Program provides several classes of projects:

- **Medium-class Explorer (MIDEX)** –investigations characterized by definition, development, launch service, and mission operations and data analysis costs not to exceed \$240 million (FY03) total cost to NASA.
- **Small Explorers (SMEX)** –investigations characterized by definition, development, launch service, and mission operations and data analysis not to exceed \$120 million (FY03) total cost to NASA.
- **University-class Explorers (UNEX)** –investigations characterized by definition, development, launch service, and mission operations and data analysis costs not to exceed \$15.0M (real year dollars) total cost to NASA.
- **Missions of Opportunity (MO)** –investigations characterized by being part of a non-NASA space mission of any size and having a total cost to NASA under \$35 million. They are conducted on a no-exchange-of-funds basis with the organization sponsoring the mission. NASA solicits proposals for MO with each Announcement of Opportunity (AO) issued for UNEX, SMEX, and MIDEX investigations.

Scientific investigations (missions) are procured through the AO process. A single Principal Investigator (PI) leads each Explorer mission investigation team. The PI may be from any category of U.S. institutions, including educational institutions, industry or nonprofit organizations, one of the NASA centers, the Jet Propulsion Laboratory (JPL), other federally funded research and development centers, or other U.S. Government agencies. The PI team may consist of personnel from any combination of these institutions. The AO selection of a PI team provides the full authority necessary for the PI to contract with all members of that team without further competition for that project.

The Explorers Program periodically releases new AO through the NASA OSS. In fact, a MIDEX AO is planned for release some time in 2004. To find out more information about such opportunities, visit the OSS Research Opportunities web site at http://research.hq.nasa.gov/code_s/code_s.cfm.

To learn more about the Explorers Program, visit the Program's web site at <http://explorers.gsfc.nasa.gov/index.html>.

By Reginald Eason/Explorers Program Office GSFC Code 410.0

Other RSDO News

RSDO Attends the 17th Small Satellite Conference

We exhibited the RSDO at the 17th Small Satellite Conference held at Utah State University in Logan, Utah, during the week of August 10, 2003. This annual conference brings the aerospace industry and academia together to discuss aerospace issues and experience some of academia's amazing student talent. RSDO hosted a booth with representatives of GSFC's Integrated Design Capability (IDC) and the Access to Space web site.

An important aspect of the Small Satellite Conference is its emphasis on education. Thirteen educational institutions exhibited student aerospace activities at the conference, and a scholarship competition was held in which between 15 and 20 students received scholarships as large as \$7000. This year RSDO Chief, Greg Smith, had the good fortune to participate in the initial assessment of the student paper abstracts.



Goddard team members pose in front of their booth at the 17th Small Satellite Conference at Utah State University.

Pictured from left to right are: Naseema Maroof/RSDO, Greg Smith/RSDO, Earnestine Smart/RSDO, Kevin Maloney/RSDO, Dr. Peter Demarest/a.i. solutions, Mick Correia/IDC, John Martin/IDC, and David Peters/IDC. Also present at the conference, but not included in this photo, was Bill Reaves/RSDO.